

Therese Feng

Vice President of Research The Climate Service 300 Morris Street 7th Floor Durham, NC 27701 tfeng@theclimateservice.com May 14 2020

Mr. Robert Litterman Chairman Climate-Related Market Risk Subcommittee Commodity Futures Trading Commission 1155 21st Street NW Washington, DC 20581

Dear Mr. Litterman,

This letter is in response to the Climate-Related Market Risk Subcommittee's April 14, 2020 notice for public comment. We strongly support the MRAC Climate Subcommittee's initiative to explore climate change-related financial and market risks. For both institutions and regulators, fully considering climate risk by assessing instruments, portfolios, and markets is an essential step to understanding the systemic risks that climate change poses.

As background, the Climate Service (TCS) provides financial institutions, corporates and governments with climate risk analytics to measure, monitor, manage, and disclose material financial climate risks. Our active advisors include four of the Nobel award scientists from the IPCC. TCS' current engagements include assessing portfolios for major financial institutions, including millions of mortgages held by a top-5 global bank, as well as selected listed equity, bond, sovereign, and muni holdings for a major asset manager.

We are responding to two of the issues raised in the April 14, 2020 notice for public comment, namely:

- · Identifying challenges or impediments to evaluating and managing climate-related financial and market risks;
- · Identifying appropriate methods by which market participants' data and analyses can enhance and contribute to the assessment of climate-related financial and market risks and their potential impacts on agricultural production, energy, food, insurance, real estate, and other financial stability indicators.

We believe there are significant challenges to evaluating climate risks for a financial instrument, which could arise (such as for a traditional commodity) from

- Identifying the geographic sourcing of a commodity and associated climate hazards (such as flooding, drought, temperature extremes, wildfire, or hurricanes) over time
- Characterizing the impact that climate hazards might have on major producers, either directly on their operations or on major inputs into their production
- Assessing the effect of upstream or downstream supply chain disruptions, including those arising from climate-related hazards to

local transport or electricity infrastructure, or on local labor sources

- Evaluating climate-related demand disruptions in major consuming industries or regions
- Evaluating transition-related risks arising from own- or end-user technological advances, environmental regulations for producers or end-users, changes in consumer preference, etc.

A lack of transparency into or difficulty measuring potential impacts may increase the potential for sudden pricing corrections in market segments from unanticipated news, such as due to revelation of unforeseen correlations. This may be of greater concern given the massive growth in commodity derivative trading activity and potentially less efficient price discovery in OTC markets.

TCS' approach to measuring the financial impact of climate change is based on global and geographically granular databases of all major climate hazards, mapped through 2100; and comprehensive and accurate capture of location-based data. Our methodology also relies on hazard-specific and asset-specific vulnerability functions that capture non-linear responses to hazard levels, as well as the effects of adaptation efforts. These estimate the damages that a climate hazard would cause to a physical asset, expressed in financial terms. We believe such an approach would be robust in capturing climate change impacts on commodity-derived instruments and funds.

We would recommend the MRAC encourage institutions with significant commodity derivative or fund exposure to focus on climate risk discovery and materiality, in particular establishing robust analytical and measurement frameworks for estimating the risks associated with commodity financial assets. The MRAC could consider a process of consultation to establish robust criteria for climate risk measurement; establish progressive standards for institutional reporting; and encourage information sharing to cultivate more robust assessment and management response.

Thank you for your consideration.

Sincerely,

Therese Feng

Vice President of Research

The Climate Service